

JIG DESIGN

if the spindle has an adjustable stop, this should be used. The work is located in line with the two guide bushings by spherical seats formed in the jig body and in the upper bushing, as shown. As the work can be inserted and removed quickly, a large number of balls, which, practically speaking, are duplicates, can be drilled in a comparatively short time by using a jig of this type.

A box jig that differs somewhat in construction from the design just referred to is illustrated at *A* in Fig. 4, which shows

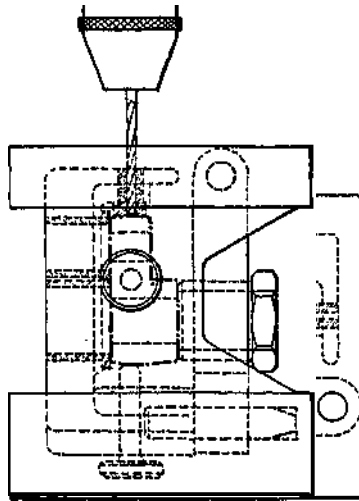


Fig. 5. Jig shown at *A*, Fig. 4, in Two Different Drilling Positions

a side and top view. The work, in this case, is a small casting the form of which is indicated by the heavy dot-and-dash lines. This casting is drilled at *a*, *b*, and *c*, and the two larger holes *a* and *b* are finished by reaming. The hinged cover of this jig is opened for inserting the work by unscrewing the T-shaped clamping screw *s* one-quarter of a turn, which brings the head in line with a slot in the cover. The casting is clamped by tightening this screw, which forces an adjustable screw bushing *g* down against the work. By having this bushing adjustable, it can be set to give the right pressure, and, if the height of the cast-